

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0114804

Owner: Laclede Gas Company
Address: 720 Olive Street, St. Louis, MO 63101

Continuing Authority: Same as above
Address: Same as above

Facility Name: Laclede Gas Company - Underground Propane Cavern
Facility Address: 14905 Sinks Road, St. Louis, MO 63034

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 6, T47N, R6E, St. Louis County

Receiving Stream: Mill Creek (U)
First Classified Stream and ID: Missouri River (P)(01604)
USGS Basin & Sub-watershed No.: (10300200-180003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

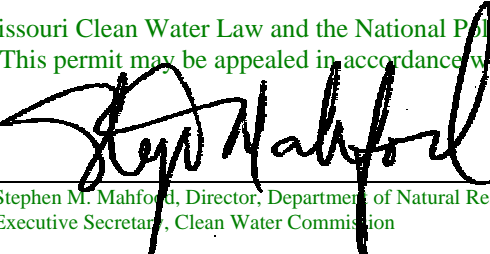
FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

July 26, 2002 February 6, 2004
Effective Date Revised

July 25, 2007
Expiration Date
MO 780-0041 (10-93)



Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Jim Hull, Director of Staff, Clean Water Commission

FACILITY DESCRIPTION

Outfall #001 - Industry - SIC #4924

Eliminated. Terminated. Was evaporation pond for natural gas storage cavern. Closed. Discharge routed to champ #4 well, permit 41C20042.

Outfall #002 - Industry - SIC #4924

Propane cavern groundwater purging system, which includes discharge into an evaporation pond.

Actual flow is 30,000 gallons per day.

7 monitoring wells near propane cavern/MW 1-5/pond well/Barteau well - Industry - SIC #4924

Monitoring wells for propane.

MW 1-5 are 25' to 61' deep.

Pond well is 328' deep.

Barteau well is 377' deep.

Cavern has a 410' deep floor, 390' ceiling.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 5	
					PERMIT NUMBER MO-0114804	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> - Eliminated						
<u>Outfall #002</u> - Discharge from propane cavern groundwater purging system.						
Flow	MGD	*		*	once/month	24 hr. estimate
Ammonia Nitrogen	mg/L	20		10	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
Benzene	µg/L	*		*	once/quarter**	grab
Toluene	µg/L	*		*	once/quarter**	grab
Chlorobenzene	µg/L	*		*	once/quarter**	grab
1,1-Dichloroethene	µg/L	*		*	once/quarter**	grab
Trichloroethene	µg/L	*		*	once/quarter**	grab
2,4-Dimethylphenol	µg/L	*		*	once/quarter**	grab
4-Methylphenol	µg/L	*		*	once/quarter**	grab
Phenol	µg/L	*		*	once/quarter**	grab
pH - Units	SU	***		***	once/quarter**	grab
Xylene	µg/L	*		*	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>April 28, 2004</u> .						
<u>Monitoring wells near propane cavern/ MW 1-5/Pond well/Barteau well</u>						
Propane	mg/L	*		*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2004</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter in the months of February, May, August & November.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability, subject to the approval of the St. Louis Metropolitan Sewer District (MSD).
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

Date of Fact Sheet: February 19, 2002; July 31, 2003, September 2, 2003

Date of Public Notice: March 29, 2002; October 10, 2003; December 19, 2003

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0114804

FACILITY NAME: Laclede Gas Company – Underground Propane Cavern

OWNER NAME: Laclede Gas Company

LOCATION: Outfall #001 Sec. 11, T47N, R6E, St. Louis County – Closed
Outfall #002 Sec. 6, T47N, R7E, St. Louis County

RECEIVING STREAM: Unnamed Tributary to Mill Creek

FACILITY CONTACT PERSON: Richard Kottemann

TELEPHONE: (314) 658-5598

FACILITY DESCRIPTION AND RATIONALE

Laclede Gas Company, 720 Olive Street, St. Louis, MO 63101, has applied for reissuance of NPDES Permit Number MO-0114804 for the underground propane cavern facilities located in Florissant, Missouri. The applicable standard industrial classification (SIC) code for this facility is 4924.

Outfall #001 - Closed - This was a pond where water from the 6+ mi², 1,400' deep, natural gas storage dome was discharged. The reservoir is in the St. Peter Sandstone location which is approximately NW ¼, NE ¼, Sec. 11, T47N, R6E, St. Louis County, projected, as there are no actual section, township, and ranges close to the river. A discharge from Outfall #001 to the first evaporation pond was produced when entrained formation water rose from the St. Peters interval during natural gas withdrawal operation. This water is now injected back to formation via champ #4 well, permit #41C20042.

Outfall #002 – This is a pond where water from the 400' deep propane cavern is discharged. Location is SW ¼, SW ¼, Sec. 6, T47N, R7E, St. Louis County, (projected). The cavern is located in the Warsaw Shale. A discharge from Outfall #002, the second evaporation pond, is produced when the sump within the mined propane cavern expels collected formation water. The propane cavern also has seven monitoring wells, two deep and five shallow which need to be sampled for propane yearly.

The Department does not anticipate any discharges from these ponds to reach the tributary to Mill Creek in the Missouri River and Eastern Tributaries River Basin. Water quality standards for the Missouri River lists the following beneficial water used to be maintained:

- Drinking Water Supply
- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Irrigation
- Boating and Canoeing
- Industry

This Fact Sheet is being reissued with permit modifications resulting from resolution of an appeal of the permit issued on July 26, 2002.